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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,083	07/06/2001	Sung Bong Kim	0630-1288P	3536
2292	7590	04/22/2004	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			JELINEK, BRIAN J	
			ART UNIT	PAPER NUMBER
			2615	

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/899,083

Applicant(s)

KIM, SUNG BONG

Examiner

Brian Jelinek

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

### **DETAILED ACTION**

This is a first office action in response to application no. 09/899,083 filed on 7/6/2001 in which claims 1-23 are presented for examination.

#### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 2000/38492, filed on 7/6/2000.

#### ***Specification***

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed

The abstract of the disclosure is objected to because it is replete with grammatical and idiomatic errors (see lines 2-3 and 5). Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: it is replete with grammatical and idiomatic errors. Appropriate correction is required.

#### ***Claim Objections***

Claims 5-7, 10-11, 13-15, and 22-23 are objected to because of the following informalities: there is insufficient antecedent basis for the limitation in the claim.

Claim 5 recites the limitation "the determination" in line 3.

Claims 6-7 recite the limitation "cell regions" in lines 7, 9, 12, and 14.

Claims 10-11 and 13 recite the limitation "the previously determined standard illumination level" in lines 5, 13, and 20.

Claim 14 recites the limitation "the previously stored standard illumination" in line 1.

Claim 15 recites the limitation "the previously determined standard illumination level" and "the standard illumination level" in lines 9 and 11.

Claims 22-23 recite the limitation "the nighttime mode" in lines 25 on page 14 and in line 3 on page 15. Appropriate correction is required

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 8-11, 15, and 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Easterly et al. (U.S. 5,038,216).

Easterly et al. discloses a control method comprising:  
(claim 1) a CCD camera (Fig. 1A, element 20) that detects illumination levels in a certain space to be photographed (col. 5, lines 1-4);  
and furthermore, compares the detected illumination levels to a previously determined standard illumination level (col. 4, lines 57-59) ;

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and switches a photographing mode of a camera on the basis of the comparison (col. 4, lines 52-59 and col. 33, lines 24-28);

(claim 2) wherein, in the step of detecting the illumination levels, an illumination level is detected of each cell region in a photographing area divided into a plurality of cell regions (col. 23, lines 30-33 and col. 23, lines 57-60).

(claim 3) wherein, in the comparing step, it is determined whether the illumination level of each cell region is higher than the standard illumination level (col. 18, lines 67-68).

(claim 4) wherein the step of switching the photographing mode of the camera comprises the sub-steps of: counting the number of cell regions having a detected illumination level less than the standard illumination level and determining whether the thusly counted number of cell regions is greater than a certain percentage of the total number of cell regions (col. 18, line 48-col. 19, line 10 and col. 33, lines 18-23 and 40-47);

and switching the photographing mode of the camera on the basis of the determination (col. 25, lines 59-68).

It should be noted that while by Easterly et al. does not specifically state that the number of cell regions is counted, counting the cells is inherent in determining a percentage.

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(claim 8) a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 9, lines 40-48); detecting an illumination level of each cell region (col. 18, lines 51-56); and switching the photographing mode of the camera on the basis of the detected illumination levels (col. 4, lines 52-59 and col. 33, lines 24-28).

(claim 9) wherein switching of the photographing mode of the camera is on the basis of determining whether the illumination level of each cell region is higher than a previously determined standard illumination level (col. 18, lines 67-68).

(claim 10) wherein the step of switching the photographing mode of the camera comprises the sub-steps of: counting the number of cell regions among all the cell regions having a lower illumination level than the previously determined standard illumination level and determining whether the counted number of cell regions is higher than a certain percentage of the total number of cell regions (col. 18, line 46-col. 19, line 10 and col. 33, lines 18-23); and switching the photographing mode of the camera on the basis of the determination (col. 25, lines 59-68).

It should be noted that while by Easterly et al. does not specifically state that the number of cell regions is counted, counting the cells is inherent in determining a percentage.

(claim 11) wherein the photographing mode of the camera is switched on the basis comparing the detected illumination levels and the previously determined standard illumination level (col. 18, lines 67-68).

(claim 15) a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions and detecting an illumination level of each cell region (col. 4, lines 61-64); determining whether the detected illumination level of each cell region is greater than the previously determined standard illumination level (col. 18, lines 67-68); counting the number of the cell regions having a lower illumination level than the standard illumination level and determining whether the counted number is greater than a certain percentage of the total number of cell regions and switching the photographing mode of the camera on the basis of the determination (col. 25, lines 59-68).

It should be noted that while by Easterly et al. does not specifically state that the number of cell regions is counted, counting the cells is inherent in determining a percentage.

(claim 19) a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions and detecting the illumination of each cell region (col. 4, lines 61-64);

determining whether the illumination of each cell region is greater than a previously determined standard illumination value (col. 18, lines 67-68); counting the number of the cell regions having a lower illumination than the standard illumination value and determining whether the counted number of cell regions is greater than a is certain percentage of the total number of cell regions (col. 18, line 48- col. 19, line 10 and col. 33, lines 18-23 and 40-47) and switching the photographing mode of the camera on the basis of the determination (col. 25, lines 59-68).

It should be noted that while by Easterly et al. does not specifically state that the number of cell regions is counted, counting the cells is inherent in determining a percentage.

(claim 20) wherein the cell regions divide the photographing area at regular intervals (col. 23, lines 40-41).

(claim 21) wherein the illumination of the cell regions is uniformly averaged regardless of the position of the cell regions (see the light diffuser in Fig. 2A).

Claims 1, 5, 8, and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Beis (U.S. 5,172,220).

Beis discloses:

(claim 1) a controlling method for a CCD camera (col. 6, lines 15-16) comprising the steps of: detecting illumination levels in a certain space to be photographed;



comparing the detected illumination levels to a previously determined standard illumination level; and switching a photographing mode of a camera on the basis of the comparison result (col. 2, lines 31-36).

(claim 5) wherein the step of switching the photographing mode of the camera switches the photographing mode of the camera to a daytime mode or a nighttime mode on the basis of the determination (col. 4, lines 49-53).

(claim 8) a method of controlling a photographing mode of a camera comprising the steps of: dividing a photographing area into a plurality of cell regions (col. 6, lines 21-23);

detecting an illumination level of each cell region (col. 2, lines 35-36);  
and switching the photographing mode of the camera on the basis of the detected illumination levels (col. 2, lines 37-39).

(claim 12) wherein the photographing mode of the camera is switched into either a daytime mode or a nighttime mode (col. 1, lines 9-10).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-7, 13-19, and 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beis (U.S. 5,172,220) in view of Easterly et al. (U.S. 5,038,216).

Regarding claim 6, Beis teaches all of the limitations of claim 1 (see 102 rejection supra), including that the photographing mode of the camera is switched to a nighttime mode in the case where a lower illumination level than the standard illumination level is detected (col. 1, lines 9-10 and 47-50). Furthermore, Beis teaches that the image sensing means contain a plurality of electronic sensing elements (col. 3, lines 2-4) and refers to them specifically as "cells" (Fig. 4 and col. 6, lines 21-22) and that these "electrical image signals can be used" (col. 2, lines 35-36) in detecting the illumination level.

Beis does not specifically teach how the illumination levels of the sensing cell regions are combined to determine if the camera mode should be switched to a nighttime mode, e.g. when the number of cell regions having a lower illumination level than the standard illumination level is greater than a certain percentage of the total number of cell regions. However, Easterly et al. does teach that a camera may switch to a low light intensity mode when the number of cell regions having a lower illumination level than the standard illumination level is greater than a certain percentage of the total number of cell regions (col. 18, lines 64-70 and col. 33, lines 31-34).

It is clear that providing in Beis a statistical method for considering the illumination of the plurality of cell regions would make the determination to switch

modes more robust by factoring in all available illumination information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the statistical method of Easterly et al. to determine if a camera should be switched to a nighttime mode on the basis of the intensity of illumination from a plurality of cell regions in order to make the mode-switching decision accurately.

Regarding claim 7, see the 103 rejection for claim 6 above, and further note that Beis does not specifically teach that a camera mode may be switched to a daytime mode in case the number of cell regions having lower illumination level than the standard illumination level is less than a certain percentage of the total number of cell regions. However, Easterly et al. teaches a camera that switches to a high illumination mode in the case where the number of cell regions having a lower illumination level than the standard illumination level is less than a certain percentage of the total number of cell regions (col. 18, lines 64-70 and col. 33, lines 35-38).

It is clear that providing in Beis a statistical method for considering the illumination of the plurality of cell regions would make the determination to switch modes more robust by factoring in all available illumination information. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the statistical method of Easterly et al. to determine if a camera should be switched to a daytime mode on the basis of the intensity of illumination from a plurality of cell regions in order to make the mode-switching decision accurately.

Regarding claim 13, see examiner's comments related to claim 6, and further note that Easterly et al. teaches a stored standard illumination level of 240 ( Fig. 7A,

block 709 and col. 25, lines 47-57) that is stored in the main program of the micro-controller (Fig. 7A, element 700 and col. 24, lines 63-65).

Regarding claim 14, see examiner's comments related to claim 7 and 13.

Regarding claim 15, Beis teaches a method of controlling a photographing mode of a camera comprising the steps of: dividing a photographing area into a plurality of cell regions and detecting an illumination level of each cell region (col. 3, lines 2-6 and col. 2, lines 31-36);

determining whether the detected illumination level of each cell region is greater than the previously determined standard illumination level and switching the photographing mode of the camera on the basis of the determination (col. 2, lines 31-35).

Beis does not teach counting the number of the cell regions having a lower illumination level than the standard illumination level and determining whether the counted number is greater than a certain percentage of the total number of cell regions. However, it would have been obvious to one of ordinary skill in the art to use the statistical method of Easterly et al. to evaluate the plurality of cell illuminations in order to determine if the photographing mode of the camera should be switched (see examiners 103 rejection on claim 6).

Regarding claim 16, Beis teaches that the photographing mode of the camera is switched to a daytime mode or nighttime mode on the basis of the illumination determination (col. 1, lines 9-10 and col. 1, lines 47-50).

Regarding claims 17-18, Beis teaches that the photographing mode of the camera is switched to a nighttime mode in the case where there is a lower illumination

intensity and to a daytime mode in the case where there is a higher illumination intensity (col. 1, lines 9-10 and col. 1, lines 47-50). Beis does not teach that the determination of illumination is based on the number of the cell regions having a lower illumination level than the standard illumination level that is higher or lower than the certain percentage; this issue is addressed in the 103 rejections for claims 6 and 7 above.

Regarding claim 19, Beis teaches a method of controlling a photographing mode of a camera, comprising the steps of: dividing a photographing area into a plurality of cell regions and detecting the illumination of each cell region (col. 3, lines 2-6); determining whether the illumination of each cell region is greater than a previously determined standard illumination value and switching the photographing mode of the camera on the basis of the determination (col. 2, lines 31-39).

Beis does not teach counting the number of the cell regions having a lower illumination than the standard illumination value and determining whether the counted number of cell regions is greater than a certain percentage of the total number of cell regions. The applicant should see the examiner's 103 rejection of claim 6 for a discussion on this issue.

Regarding claim 22, see examiner's 103 rejection of claim 6.

Regarding claim 23, Beis makes no mention of using an optical low pass filter.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11

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F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 5 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 respectively of copending Application No. 09/899,066. Although the conflicting claims are not identical, they are not patentably distinct from each other.

Regarding claim 1, it recites a controlling method for a CCD camera, which is the control method of a CCD camera in Application No. 09/899,066; the detection of illumination levels in a certain space to be photographed, which is the detection of an illumination of a photographing region in Application No. 09/899,066; the comparison of the detected illumination levels to a previously determined standard illumination level, which is the comparison of the detected illumination with a reference illumination in Application No. 09/899,066; and the switching a photographing mode of a camera on the basis of the comparison result, which is the setting of a photographing mode on the basis of the comparison in Application No. 09/899,066.

Regarding claim 5, it recites switching the photographing mode of the camera to a daytime mode or a nighttime mode on the basis of the illumination determination,

which is setting a daytime mode when the detected illumination is not less than the reference illumination value in Application No.09/899,066.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Jelinek whose telephone number is (703) 305-4724. The examiner can normally be reached on M-F 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Christensen can be reached on (703) 308-9644. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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